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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------------------------------------------------------------------------------------|-------------|----------------------|---------------------|-------------------|
| 09/698,479 | 10/30/2000 | Vance Bergeron | APV30270CIP | 6625 |
| 7590 | 05/05/2006 | | EXAMINER | |
| STEVENS, DAVIS, MILLER & MOSHER, L.L.P. 1615 L Street N.W., Suite 850 Washington, DC 20036 | | | | CHEUNG, WILLIAM K |
| | | ART UNIT | PAPER NUMBER | 1713 |

DATE MAILED: 05/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-------------------|-----------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/698,479 | BERGERON ET AL. |
| | Examiner | Art Unit |
| | William K. Cheung | 1713 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 20 April 2006.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-15, 17-41 and 43 is/are pending in the application.
- 4a) Of the above claim(s) 14, 15 and 19-41 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-13, 17, 18 and 43 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 022706, 101405.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: IDS 051005.

DETAILED ACTION

Request for Continued Examination

1. The request filed on April 20, 2006 for a Request for Continued Examination (RCE) under 37 CFR 1.53(d) based on parent Application No. 09/698,479 is acceptable and a RCE has been established. An action on the RCE follows.
2. In view of amendment filed February 27, 2006, claims 16 and 42 have been cancelled, and new claim 43 has been added. Claims 1-15, 17-41, 43 are pending. Claims 14-15, 19-41 are drawn to non-elected subject matter. Claims 1-13, 17-18, 43 are examined with merit.
3. In view species election of January 10, 2005, applicants have elected the species of claims 1-13, 17-18, 43 exemplified in Example 1 of the specification (page 139).

EXAMPLE 1

Preparation of Poly(HEA-*co*-DMAM-*co*-AA) (9:3:1) Terpolymer

2-Hydroxyethyl acrylate (25.00 g, 215.3 mmol), 2-(dimethylamino)ethyl methacrylate (11.28 g, 71.8 mmol), acrylic acid (1.71 g, 23.7 mmol), 2,2'-azobisisobutyronitrile (0.26 g, 1.6 mmol), 1,4-dioxane (150 ml) and 2-propanol (30 ml) are placed into a 500 ml three-necked round-bottomed flask, fitted with a heating mantle, magnetic stirrer, internal thermometer and argon inlet. The mixture is sparged with nitrogen for 30 minutes to remove dissolved oxygen. The mixture is heated for 18 hours with stirring at 65°C. TLC (diethyl ether) indicates consumption of monomer. An equal volume of water is added and the mixture is concentrated under vacuum by rotary evaporation to remove the solvent. Water is added to make a 10% solution and the mixture is lyophilized and then pulverized in a blender to yield an off-white powder. NMR is consistent with the desired compound.

4. In view of amendment filed February 27, 2006, the rejection of claims 1-13, and 16-18, 42 rejected under 35 U.S.C. 112, second paragraph, is withdrawn.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

Art Unit: 1713

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
7. Claims 1-13, 17-18, 43 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Fink et al. (US 4,542,175) for the reasons adequately set forth from paragraph 8 of the office action of August 26, 2005.

Applicant's arguments filed February 27 have been fully considered but they are not persuasive. Applicants argue that copolymers of Fink et al. are not soluble in a water solution because the examples in Fink et al. contain butyl acrylate, ethyl acrylate, or methacrylate, which make copolymer insoluble in water. However, solubility in water is not a feature requires by claim 7.

Further, applicants must recognize that the teachings of a prior art relied upon for the instant rejection is not limited to its preferred embodiment. In the present case, the broad teachings in Fink et al. (col. 5, line 9-64; col. 6, line 20-42) clearly include the copolymer being claimed. Applicants must recognize that Fink et al. (col. 6, line 20-42) clearly indicate that hydrophilicity of the emulsion polymer can be increased with hydroxylalky acrylates and methacrylates.

Regarding applicants' Declaration filed February 27, 2006, the Declaration is not effective in overcoming the rejection set forth because of lack of evidence support applicants' view.

Applicants must also recognize that component (C) as claimed is an optional ingredient in the claimed invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William K. Cheung, Ph. D.

Primary Examiner
April 28, 2006

WILLIAM K. CHEUNG
PRIMARY EXAMINER